

said method further comprising the steps of:

with said recognizer, recognizing words; and

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wm/w with said translator, accepting textual input having originated from said recognizer, and automatically improving the quality of said textual input for entry into said indexing database, whereby errors produced by said recognizer and which are detrimental to indexing performance are reduced, and wherein, immediately prior to reconfiguration, said textual input appears as a feature-extracted transformation of at least one word recognized by said recognizer.--

REMARKS

Applicants and the undersigned are most grateful for the time and attention accorded this application by the Examiner. The Office is respectfully requested to reconsider the rejections applied against the instant application in light of the claim and drawing amendments rendered herein and the remarks presented below.

Claims 1-19 are pending in the instant application.

The Office did not approve Applicants' previously proposed drawing amendment. Accordingly, a substitute drawing sheet containing proposed changes to Figure 1 is newly submitted herewith, with the changes being shown in red. Reconsideration and withdrawal of the present objection are thus hereby respectfully requested.

Claims 1-19 again were rejected under 35 U.S.C. 103 in view of "Applicant's admittance" and Kuga et al. Reconsideration and withdrawal of the rejection are hereby respectfully requested.

The remarks presented in the Amendment filed February 28, 2002, are again relevant. As discussed therein, the "admittance", as set forth in Figure 1, relates merely to a conventional indexing arrangement in which there is no translator or translation model involved. Kuga, on the other hand, does not appear to address the specific issue of improving textual input for entry into an indexing database.

As amended herein, independent Claims 1, 10 and 19 emphasize the provision of clean data for subsequent indexing. Thus, the present invention, in accordance with at least one presently preferred embodiment, does not relate to indexing *per se* but, essentially, to a pre-processing step in the context of indexing. As such, clean data provided in accordance with at least one embodiment of the present invention could be "plugged in" to a larger, general indexing arrangement such as that disclosed by Kuga.

Claims 1, 10 and 19 have further been amended to emphasize that the recited translator has been trained automatically and operates automatically to improve the quality of textual input for entry into an indexing database. It is respectfully submitted that Kuga falls far short of such an arrangement.

As best understood, Kuga appears to involve the use of a text editor which, at most, is able to afford manual intervention for transforming text that is to be entered into

an indexing database. There appears to be no teaching or suggestion in Kuga to the effect that such transformation of text can or should be undertaken automatically.

In the Amendment filed February 28, 2002, a non-restrictive and illustrative example of an embodiment of the present invention (with relation to Fig. 2a and pp. 6-7 of the instant specification) is still relevant here, insofar as raw output from a speech recognizer is automatically transformed into an improved output of textual features for being stored in a database. Such automation is facilitated, in accordance with at least one embodiment of the present invention, via an automatically trained translation model. (See p. 8, lines 4-14 of the instant specification). Data deriving from such training may assist in the translator's subsequent transformations of "noisy" data into "clean" data. Through knowledge, or "contextual intelligence", gained from a statistical analysis of the changes actually undertaken, further refinements in the automatic translation model can be undertaken.

Such advantages cannot be derived from the arrangements contemplated by Kuga. Perhaps a suitable basis of comparison between Kuga and at least one embodiment of the present invention may be found in connection with Figs. 7 and 14 of Kuga. Essentially, Kuga involves the use of special dictionaries (see, e.g., Col. 14, lines 28-37), and an entry for such a special dictionary is shown in Fig. 7. Additionally, the use of an entry for a special dictionary is discussed (with respect to Fig. 14) at Col. 17, lines 19-57 of Kuga (particularly, lines 36-47). Thus, Kuga essentially involves the creating of index entries in canonical form, whereby "noisy" textual features are not at all automatically cleaned up before being entered into an indexing database. Indeed, to cite from the instant

application (see the paragraph therein bridging pp. 8 and 9), the perceived term “Monica whiskey” would likely still be indexed as “Monica whiskey” using the arrangements contemplated by Kuga, since both words are valid dictionary words. Lacking the “contextual intelligence” afforded in accordance with at least one embodiment of the present invention, the “noisy” text of “Monica whiskey” would not be corrected to the “clean” text of “Monica Lewinsky”. Such correction, indeed, is contemplated in accordance with at least one embodiment of the present invention as a result of an automatically trained translator which automatically improves the quality of textual input for entry into an indexing database.

In view of the foregoing, it is respectfully submitted that independent Claims 1, 10 and 19 fully distinguish over the applied art and are thus allowable. By virtue of dependence from what are believed to be allowable independent Claims 1 and 10, it is respectfully submitted that Claims 2-9 and 11-18 are also allowable.

Applicants recognize that the Office has considered the prior art made of record but not applied against the claims to have been not sufficiently relevant as to have been applied against the claims.

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In summary, it is respectfully submitted that the instant application, including Claims 1-19, is in condition for allowance. Notice to the effect is hereby earnestly solicited.

Respectfully submitted



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MARKED-UP VERSION OF CLAIM AMENDMENTS

Claims 1, 10, and 19 are rewritten as follows:

-- 1. **(Twice Amended)** [An indexing] A system for providing clean data for indexing, said system comprising:

 a recognizer which recognizes words;

 an indexing database; and

 a translator, having been trained automatically, which accepts textual input, having originated from said recognizer, and which is adapted to automatically improve the quality of said textual input for entry into said indexing database, whereby errors produced by said recognizer and which are detrimental to indexing performance are reduced, and wherein, immediately prior to reconfiguration, said textual input appears as a feature-extracted transformation of at least one word recognized by said recognizer.—

-- 10. **(Twice Amended)** A method of providing clean data for indexing, said method comprising the steps of:

 providing an indexing database;

 providing a recognizer which recognizes words; and

 providing [a] an automatically trained translator which accepts textual input having originated from said recognizer;

said method further comprising the steps of:

with said recognizer, recognizing words; and

with said translator, accepting textual input having originated from said recognizer, and automatically improving the quality of said textual input for entry into said indexing database, whereby errors produced by said recognizer and which are detrimental to indexing performance are reduced, and wherein, immediately prior to reconfiguration, said textual input appears as a feature-extracted transformation of at least one word recognized by said recognizer.—

-- 19. (Twice Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing clean data for indexing, said method comprising the steps of:

providing an indexing database;

providing a recognizer which recognizes words; and

providing [a] an automatically trained translator which accepts textual input having originated from said recognizer;

said method further comprising the steps of:

with said recognizer, recognizing words; and

with said translator, accepting textual input having originated from said recognizer, and automatically improving the quality of said textual input for entry into

said indexing database, whereby errors produced by said recognizer and which are detrimental to indexing performance are reduced, and wherein, immediately prior to reconfiguration, said textual input appears as a feature-extracted transformation of at least one word recognized by said recognizer.—